PART I - THE SCHEDULE
SECTION C
STATEMENT OF WORK

TABLE OF CONTENTS

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SECTION C
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C.1 SUMMARY DESCRIPTION OF WORK

The Hanford Site has two major missions: (1) cleanup, and (2) science and technology. There are two major Office of Environmental Management (EM) programs associated with cleanup. The first is the River Protection Project (RPP), which entails cleanup of Hanford Site tank waste which is stored in single shell and double shell underground tanks, and is managed by the U.S. Department of Energy (DOE) Office of River Protection (DOE-ORP). The second is Project Hanford, which entails cleanup of the remainder of the Hanford Site, and is managed by the DOE Richland Operations Office (RL). The RPP will execute its workscope as part of the Hanford Waste Treatment Complex (HWTC) to treat and disposition Hanford Site HLW.

RPP is composed of two major scopes of work performed by two separate contractors. CH2M HILL Hanford Group, Inc ("Contractor") shall be responsible for planning, managing, and executing the Tank Farm Contract (TFC) projects, operations, and other activities as described in more detail in Section C.3, *River Protection Project -Technical Scope*, of this Statement of Work. The Hanford Waste Treatment and Immobilization Plant (WTP) contractor will design, construct and commence operations of the WTP for treating the tank farm waste.

The Contractor shall be responsible for interfacing and coordinating with other Hanford Site prime contractors in the performance of this work. Contractor shall ensure that requirements for services provided by Contractor to other Hanford Site contractors and received from other site contractors are integrated with other Hanford Site contractors and provided for in the baseline. The Contractor shall establish appropriate arrangements with other Hanford Site prime contractors for the tasking and incentivization of work.

The Contractor shall conduct business at the Hanford Site consistent with the following outcomes:

- Maintain Tank Farms waste and infrastructure in a safe environmentally compliant and stable configuration.
- Retrieve tank wastes to the extent needed for tank closure and deliver to the WTP contractor for treatment and immobilization.
- The immobilized low-activity waste (ILAW) fraction will be properly disposed either onsite or offsite.
- The immobilized high-level waste (IHLW) fraction will be interim stored until it can be shipped offsite for disposal (planned for the Yucca Mountain geologic repository).
- Efficiently and cost effectively close all Hanford Tank Farms.

Success in achieving these outcomes shall consider the following factors:

- Protection of worker safety and health, public safety and health, and the environment;
- Leadership and management effectiveness (Operations Management);
- Management responsiveness to customers (Customer Service);
- Responsive communications with external and internal Hanford customers; and
- Proficient partnering with other Hanford Site prime contractors.

Specific performance objectives, measures, and expectations are detailed in Section J, Appendix D, *Performance Based Incentives*, and Section C.3, *River Protection Project – Technical Scope*.

The Contractor shall integrate safety and environmental awareness into all activities, including those of subcontractors at all levels consistent with Integrated Safety Management principles. Work must be accomplished in a manner that achieves high levels of quality, protects the environment, the safety and health of workers and the public, and complies with requirements. The Contractor shall identify hazards, manage risks, identify and implement good management practices, and make continued improvements in environment, safety, health, and quality (ESH&Q) performance.

The Contractor shall seek ways to streamline work processes by the use of necessary and sufficient standards and requirements. This includes requesting relief in the form of exemptions from requirements when appropriate, such as when the cost of the requirement will exceed its expected benefits.

The Contractor shall furnish, or cause to be furnished, all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this contract as furnished by the Government), and otherwise do all things necessary for, or incident to, providing its best efforts so as to carry out in an efficient and effective manner all necessary work set forth in this Contract.

This Contract is intended to perform work necessary to reduce the potential risk to the public and the environment from the tank waste stored on the Hanford Site. It is also intended to meet the DOE legal obligations and commitments in carrying out this work. This Contract will be changed as required to assure that applicable legal obligations and commitments will be met.

C.2 MANAGEMENT WORKSCOPE

(a) Project Planning

The Contractor shall:

(1) Perform planning based on the requirements, interfaces, endpoint targets and performance objectives provided in DOE guidance and approved Performance Based Incentives (PBIs). This planning activity shall utilize systems engineering techniques assuring that the Contractor's workscope is integrated. The Contractor shall support required revisions of the Hanford Strategic Plan and will participate with other DOE prime contractors, regulators, stakeholders, and customers in strategic situation analysis, integrated baseline development discussions and issue definition, and resolution. This planning shall look beyond the period of this contract to the life-cycle of RPP projects.

(2) Complete and maintain an integrated life-cycle baseline which reflects: (a) technical scope of work specified in this Contract, (b) project/program schedules with critical paths identified, and (c) a cost profile based on a resource-loaded schedule. The Contractor shall use industry-proven methodology, which will interface with DOE specific management information systems, in the preparation of this technical, schedule and cost baseline. The Baseline shall be the basis for budget development, input to risk analysis, and prioritization of work. The Baseline shall be developed and implemented in the Contractor's management system and shall be linked to the WTP contractor baselines to provide an integrated RPP baseline. Specifically, the Contractor shall:

(i) Organize the technical scope of work to be planned, managed, integrated, and reported using conventional project management techniques. The Contractor shall develop and use a Work Breakdown Structure (WBS), which will align with the DOE-ORP WBS.

(ii) Implement a systems engineering process, which supports the management and integration of workscope activities. The Contractors'

selected approach to systems engineering should be based on industry practices and should utilize a graded approach, as necessary.

(iii) Develop and implement a risk management process utilizing a graded approach, which supports the management and integration activities under the authority of the Contract.

(iv) Use a "graded approach" to determine applicable sets of requirements for use in design, management and operation of the individual facilities, and execution of projects and programs, with due consideration for industry standards, elimination of redundant requirements, value added, and the level of risk associated with each facility or program.

(v) Incorporate the requirements of the *National Environmental Policy Act of 1969* (NEPA) into the planning process for activities covered in this Contract.

(vi) Provide support to DOE-ORP planning and integration activities. Conduct studies and analyses of RPP/Hanford systems and information, which supports DOE-ORP internal and external management needs. The Contractor shall provide support in: 1) corporate strategic planning, 2) policy development, 3) management information systems, and 4) baseline management and reporting. Studies and analyses include identification and development in conjunction with DOE of breakthroughs that significantly improve baseline performance and lifecycle costs or improve work processes.

(vii) Provide support for review of TFC planning and operations by both internal (DOE-ORP) and external (DOE-Headquarters, Inspector General, Defense Nuclear Facilities Safety Board, U.S Environmental Protection Agency, Washington State Department of Ecology, etc.) agencies. This will include resolution of issues and concerns following a review.

(viii) The RPP Baseline will be maintained, revised, and updated, if needed, annually. Following the WTP Contractors submission of their annual Baseline Update on April 5, the contractor shall perform an analysis of the integration of the WTP Contractor's and Contractor schedules and prepare an integrated River Protection Project (RPP) baseline. DOE-ORP will provide the Contractor with an electronic copy of the WTP Level 3 Baseline within five working days of receipt from the WTP Contractor. ORP shall provide the Contractor with a day-for-day delay delivery of the July 15 deliverable if there are changes to the WTP Contractor Level 3 Schedule after May 15. The Contractor shall provide the supporting TFC baseline package to DOE-ORP each year on July 15, fully integrated with the WTP contractor and supporting other Hanford contractor baseline packages.

Any changes to the Contractors current baseline shall be documented via a Baseline Change Request. By September 15 the Contractor shall submit a risk assessment of the RPP Integrated Baseline. By December 15 of each year, the Contractor shall provide to DOE-ORP the appropriate allocation of funds for the next fiscal year by PBS and by line item.

(b) Management System

The Contractor is responsible to have systems which are managerially and financially in control for its own and other Hanford Site work as required by DOE. In furtherance of this, the Contractor shall:

(1) Establish and maintain management systems to ensure that the Contract work is managed in a business-like manner to promote integration, enhance customer and stakeholder confidence, provide accurate and timely information for proactive decision-making, and ensure worker and public safety and protection of the environment. Systems and methodologies shall be established to identify, evaluate, and manage risks, and establish priorities based on project life-cycle considerations.

(2) Obtain, integrate, analyze, report, and maintain appropriate and accurate TFC information to support DOE in the integration and management of the Hanford Site. This information includes, but is not limited to, data critical to effective management of the Hanford Site such as movement of wastes on or off the site, compliance with regulatory action assignments, or utilization of site services.

(3) Develop and maintain a management system, which reflects appropriate and accurate information to control, evaluate, and integrate project/mission management. This system shall reflect the following:

(i) Management, control, and reporting of technical, schedule, cost, and financial elements of the TFC life-cycle baseline and the supporting project execution plans, as required by the Earned Value Management System clause of this contract, including:

(A) Appropriate change control processes, which ensure documentation of all monitored elements of the baseline, are maintained up-to-date. This includes the configuration baseline of all technical systems and structures, and includes revision to the baseline and critical path as appropriate upon approval of changes.

(B) Tracking and measuring tools to provide DOE-ORP continual assessment of Contractor performance against the baseline;

(C) Tools which allow the evaluation of the consequences (technical, cost, and schedule) of new information, alternative activities, and/or new financial scenarios;

(D) Estimating procedures based on commercial techniques, such as activity-based cost estimating and benchmarking against industry standards;

(E) Cost accounting practices used for accumulating and reporting costs shall be consistent with those used in estimating costs for work under the contract.

(ii) Provide DOE-ORP with integrated financial, schedule, and critical path analysis, and activity tracking data to effectively manage the baseline(s) through automated reporting emphasizing performance measurements, change control, and trending data. This system shall support DOE ability to report direct and indirect costs in a manner satisfactory to DOE.

(iii) Maintain flexible information systems compatible with DOE information systems, including reporting, budget, and financial systems, and allow efficient data interchange among site contractors and DOE. This includes compatibility with DOE Integrated Planning, Accountability, and Budgeting System-Information System.

(iv) Create the ability to accommodate electronic transfer of data between a diverse set of hardware, software, and communications platforms. Use standard data definitions, time schedules, and rules for the provision of information to the Management Information System (MIS) to ensure accuracy and consistency. All data and information provided to DOE relating to the Contractor or the subcontractors shall be prepared using common and consistent definitions, principles, and methodologies (e.g., Full-Time Equivalent [FTE] employees).

(v) Use a centralized system of reporting unusual occurrences, near misses, environmental events, safety events, etc., and ensure that lessons learned from such occurrences are provided to DOE, the Contractor, and subcontractor workforces as defined in Section C.2.(d)(1)(e).

(vi) Maintain comprehensive management and technical oversight and corrective action programs, including tracking of issues and lessons-learned program effectiveness.

(4) Establish an RPP configuration management system based on industry consensus standards, which with other management tools, such as change control, assures a sound technical basis for the TFC life-cycle baselines.

(5) Provide to DOE via a computerized file, periodic accounting entries regarding government property acquisitions, dispositions, and monthly depreciation charges. These entries shall provide consistent information and allow reconciliation of the Contractor's detailed property records.

(6) Participate in the management of interfaces between the Contractor and any other RPP or Hanford Site organization and provide ORP with information and notification on all interface activities. The Contractor shall provide the resources needed to fully participate in the interface management process for the RPP. The Contractor shall also fully participate in the preparation for interface management activities that may occur beyond the period of contract performance.

Interface Documents will specifically be developed and maintained to define interface agreements among the parties involved with the interfaces. The Contractor shall comply with the interface agreements reached with them and shall utilize the approved change control processes to obtain changes to the interface documents. The Contractor shall recognize the DOE role as owner and as the final decision authority for any interface issues that are not resolved between the parties. Applicable Interface Document requirements associated with these agreements will also be incorporated into the TFC baseline.

(7) Participate in the development of interfaces between the Contractor and WTP contractor to: 1) establish the physical and administrative interfaces, 2) develop any delivery requirements and acceptance criteria at the point of transition, 3) provide the necessary Contractor contributions to all Interface Control

Documents that control each interface, and 4) provide necessary services and utilities.

The scope of Contractor's participation and obligations described in this subparagraph (7) shall be set forth in a jointly developed Interface Management Plan (IMP) and Interface Control Documents (ICD) developed pursuant to the IMP. The IMP and ICDs will be referenced in Appendix O and will be used to establish Contractor's baseline performance obligations to ORP.

(c) Manage and Integrate Resources

The Contractor shall manage and integrate its resources for optimal achievement of outcomes set forth in Section C.1 above. In furtherance of this, the Contractor shall:

(1) Support the annual budget submission process by working with DOE and other prime contractors to develop budget formulation documentation. The Contractor shall prepare documentation for its own work activities. Support to DOE during this process shall include but is not limited to assisting DOE to:

(i) Develop project budget data.
(ii) Prepare budget justification analyses and budget scenario studies.
(iii) Provide support to all crosscutting budget formulation documents (i.e., ESH&Q, Information Resources Management, etc.).
(iv) Obtain regulator and other stakeholder participation in budget development, including assistance in response to stakeholder and regulator inquiries.

(2) Provide leadership, project, and personnel management skills necessary to ensure compliance with the RPP goals and the *Hanford Federal Facility Agreement and Consent Order* (also known as the Tri-Party Agreement or TPA), and to motivate the workforce to:

(i) Achieve quality work performance;
(ii) Mandate attention to worker and public safety and health, environmental protection, and the tenets of Conduct of Operations; and,
(iii) Be fiscally and ethically responsible in the management of government and public resources, including property, equipment, funds, and time.

(3) Use the existing "People Core" system at the Hanford Site to enhance human resources functions sitewide.

(4) Continually "right-size" its own workforce and that of its subcontractors to have the size of workforce equal to that necessary to accomplish the authorized workscope.

(5) Resolve employee concerns (including complaints on harassment, intimidation, retaliation, and discrimination) at the appropriate level. The Contractor shall support and provide cooperative membership in an approved "appeals avenue/forum" for resolving significant employee concerns (i.e., environmental, safety, health, and quality). The Contractor shall review and make recommendations to DOE to make the charter/process consistent with this Contract. The continued need for the "appeals avenue/forum" shall be reviewed annually and a recommendation submitted to DOE for discussion.

(6) Continually promote diversity in all aspects of the work under this Contract. An updated revision to the Diversity Plan, as set forth in Section J, Appendix G,

Guidance for Preparation of Diversity Plan, shall be submitted to DOE-ORP for review and approval by February 1, 2001, and will be updated annually, thereafter.

(7) Provide an independent internal audit capability to review its activities and those of its subcontractors. An updated revision to the Internal Audit Plan as set forth in Section J, Appendix E, *Guidance for Other Required Plans* shall be submitted to ORP for approval by June 15, 2003, and updated annually thereafter.

(d) Environment, Safety, Health and Quality (ESH&Q)

(1) The Contractor shall establish an Integrated Safety Management System (ISMS), in compliance with the Section I Clauses entitled, *Integration of Environment, Safety and Health into Work Planning and Execution*, and *Conditional Payment of Fee, Profit or Incentives*, that clearly communicates the roles, responsibilities, and authorities of line managers; holds line managers accountable for the performance of work in a manner ensuring protection of workers, the public, and the environment; and ensures quality work and products.

The Contractor shall:

(i) Establish effective management systems to identify deficiencies and resolve them in a timely manner; ensure that corrective actions are implemented that address the extent of conditions, root causes, and measures to prevent recurrence; and prioritize and track commitments and actions as well as identify and implement lessons learned from other DOE sites, contractors, or commercial activities. The Contractor shall have and maintain an effective Lessons Learned Program to capture lessons learned from both internally and externally identified deficiencies and good practices. The Lessons Learned Program shall be rigorous and comprehensive such that the Contractor can demonstrate actions taken to address significant occurrences from both inside and outside of the DOE complex. Lessons learned information should be targeted and made available to the personnel in the Contractor's organization actually conducting the type of work involved and most able to benefit from the information.

(ii) Establish a structured, standards-based approach to planning and control of work including identification, management and implementation of ESH&Q standards and requirements that are appropriate for the work to be performed and for controlling related hazards, while facilitating the effective and efficient delivery of work. The Contractor shall implement the requirements identified in the Section I Clause entitled, *Laws, Regulations and DOE Directives*.

(iii) Establish an organization that supports effective ESH&Q management by ensuring appropriate levels of staffing and competence.

(iv) Establish disciplined self-assessment, feedback, continuous improvement processes, and conduct of operations discipline in the performance of all work.

(v) Implement a program to track and address environmental compliance issues and implement requirements (including but not limited to permitting, environmental reporting, Consent Decrees, Tri-Party Agreement reporting/management, NEPA, pollution prevention, waste

minimization), and comply with all aspects of the Section H Clause entitled, *Environmental Responsibility*.

(vi) Recommend and implement ESH&Q performance measures to monitor the effectiveness of the implementation of ESH&Q programs.

(vii) The occupational medicine contractor, AdvanceMed Hanford (AMH), currently provides occupational Health Services to the Hanford Site. The Contractor shall obtain for itself and require all subcontractors performing work on the Hanford Site to obtain the following services from AMH: occupational medical evaluations including return to work evaluations and work restriction reviews, medical surveillance evaluations, occupational primary care, health care centers/first aid, work conditioning, case management, work site health programs including blood-borne pathogens and immunizations, and behavioral health services including employee assistance programs, and health information services such as medical records and medical scheduling. The Contractor shall coordinate with AMH and reach agreement regarding service requirements and delivery, including data gathering and sharing. The agreement should emphasize a comprehensive public health approach as being integral to a well-run health and safety program and address cost and resources effectiveness. This agreement shall be subject to approval and validation by DOE-ORP.

(viii) Maintain, implement and improve the TFC (Tank Farms and 222-S Laboratory) nuclear safety authorization basis in support of safe, effective, and efficient work accomplishment.

(ix) In accordance with the ISMS, Authorization Agreements (AAs) will be developed, mutually agreed to, and executed between the Contractor and DOE-ORP. The Contractor will maintain the AAs. The AAs are to serve as a mechanism whereby DOE-ORP, and the Contractor, jointly clarify and agree to the key conditions for conducting work safely, effectively and efficiently for Hazard Category 1 and 2 nuclear facilities. They are to be updated annually, or as required to reflect changing conditions and contractor responsibilities.

(x) Establish annual safety goals with performance indicators, such as worker radiation exposure, lost workdays, restricted work days, etc.

(2) The safety and health of workers and the public, protection and restoration of the environment, and implementation of quality assurance programs are fundamental responsibilities of the Contractor. Accordingly, the Contractor shall:

(i) Take necessary actions to prevent serious injuries/illnesses and /or fatalities and prevent radiological or chemical exposures to workers and environmental releases in excess of established limits;

(ii) Establish clear environmental, safety, health and quality plans and priorities and manage activities in proactive ways, including visible management field presence, that effectively and efficiently protect the environment, public and worker safety and health, and ensure the quality of work and work products;

(iii) Carry out all activities in a manner that complies with human health, safety, environmental, and quality regulations; minimizes the generation

of wastes, releases or emissions into the atmosphere, and releases to soil and surface or groundwater; and complies with applicable regulatory requirements and DOE directives;

(iv) Empower workers through the use of committees, employee involvement and the tenants of the DOE Voluntary Protection Program (VPP);

(v) Engender a "Safety Conscious Work Environment" in which safety issues are promptly identified and effectively resolved, and in which employees feel free of recrimination, harassment, intimidation, or other actions that induce peer pressure to not raise safety issues or otherwise create an environment where safety issues are not identified and resolved.

(e) Economic Transition and Outsourcing

The Contractor shall:

(1) Be responsible for the performance of the work under this Contract in a manner that helps the community establish a stable economic base over the long term. This shall be accomplished through appropriate private sector participation in cleanup, making available for effective private use DOE assets no longer required or under-utilized by the Government, and investment of private resources in the community.

(2) The Contractor shall:

(i) Recommend to DOE-ORP the use (by the Contractor, subcontractors, or other private entities) of Government-owned assets (equipment, facilities, or land) on a non-interfering basis to promote, assist, or otherwise foster creation of new private sector jobs.

(ii) Accomplish changes in the workforce in a way that minimizes social and economic impacts and complies with Section 3161 of Public Law 102-484.

(f) External/Internal Communications

(1) The Contractor shall participate in the DOE-ORP external/internal communications program to ensure that the full range of stakeholders receive information in a timely, accurate, complete, and professional manner. Contractor external communications actions shall comply with the DOE Openness Initiatives and Public Involvement Policy and will be approved in advance by DOE-ORP.

(2) The Contractor shall work with DOE to ensure that external/internal communications activities represent a singular and consistent DOE source of information about the DOE-ORP mission and its relationship to the Hanford Site.

(3) Contractor external/internal communications efforts and/or corporate communications not directly related to the DOE-ORP mission at Hanford, and/or approved by DOE-ORP, are not allowable costs under this Contract.

(4) The Contractor shall keep the Hanford Site workforce related directly to the work performed by the Contractor and subcontractors under this contract informed in a timely manner of all significant issues that could impact those workers.

(5) At DOE-ORP direction, the Contractor shall:

(i) Provide timely and consistent support for inter-Governmental liaison activities, including activities with Federal, State, local and Native American Governments.

(ii) Provide logistical support for the Hanford Advisory Board and other public meetings.

(iii) Respond in a timely fashion with information as requested by DOE-ORP in support of *Freedom of Information Act* and/or *Privacy Act* requests.

(6) External/internal communications activities shall include, but not be limited to:

(i) Public Information

(ii) Public Involvement

(iii) Emergency Communications Activities

(iv) Media Relations

(v) Site Tours, including transportation for tours

(vi) Preparation/Maintenance of public information Audio/Video Products and Printed Materials.

(g) Training

The Contractor shall coordinate training needs through the Hazardous Materials Management and Emergency Response facility (HAMMER) and the Hanford Site-training program as applicable.

(h) Emergency Preparedness

The Contractor shall provide an emergency response capability for facilities under its control that implements the Hanford Emergency Management Plan (DOE/RL-94-02, Revision 2), as modified from time to time. Because of the potential for the Contractor to become the Event Contractor as defined in the Hanford Emergency Management Plan, implementation includes, but is not limited to, maintaining a 24 hour per day, 7 days per week, capability to adequately staff the required Hanford Site and Tank Farms and 222-S Laboratory specific Emergency Response organization positions within 60 minutes of receipt of notification from the Occurrence Notification Center of a Hanford Site emergency.

(i) Environmental Monitoring

The Contractor shall manage its facilities and operable units to assure compliance with environmental requirements and agreements. The Contractor shall work with the PHMC in providing legally and regulatory required air and liquid effluent and near facility environmental monitoring. The Contractor shall collect, compile, and/or integrate air and liquid effluent monitoring data from operations and activities under their control. The Contractor shall compare the monitoring data with regulatory and/or permit standards applicable to their activities and/or operations and provide the data and analyses to the Project Hanford Management Contractor (PHMC) for use in preparing the mandatory State and Federal environmental reports for the Hanford Site.

PNNL monitors the Hanford environment to protect public safety and Hanford Site ecological and cultural resources. This includes providing real time localized weather information for routine safety operations and emergency response, performing Hanford Site and off-site environmental monitoring, as well as determining radiological exposure to the public and the environment. The Contractor shall provide appropriate environmental data for its facility and operable units to support Hanford Site assessments and preparation of the Hanford Site Environmental Report.

PNNL is responsible for Hanford Site groundwater monitoring. The Contractor will be knowledgeable of actions PNNL completes to develop monitoring plans for Contractor facilities and operable units. The Contractor shall maintain regulatory oversight capability to ensure that compliance for their facility and operable units is maintained, for the groundwater-monitoring program by PNNL.

The Contractor will perform vadose zone characterization around the Tank Farms in accordance with TPA and other regulatory requirements. This effort will be integrated with the PNNL groundwater monitoring effort and DOE-ORP *Resource Conservation and Recovery Act of 1976* (RCRA) Facility Investigation/Corrective Measures Studies.

C.3 RIVER PROTECTION PROJECT

(a) Technical Scope of the Contract

The River Protection Project (RPP) scope of this Contract encompasses activities identified in the Tank Farm Contract River Protection Project Baseline (hereafter “Tank Farm Contract River Protection Project Baseline” or “Baseline”) as amended by approved Baseline Change Requests (BCRs) needed to: (1) safely store, operate and interim stabilize tank waste within an approved authorization basis for such operations applying appropriate life cycle asset management; (2) retrieve and dispose waste from and interim close single shell tanks consistent with the TPA and other applicable Federal or State laws, regulations; and retrieve and dispose waste from double shell tanks, including completion of upgrades and waste retrieval and transfer systems; (3) construct, operate, and maintain facilities necessary for storage/disposal of immobilized waste whether onsite or offsite, including balance of plant construction; (4) stabilize facilities and preparation of tank closure plans for SSTs as contemplated in the TPA ; (5) execute supporting project management responsibilities including strategic analysis, baseline management, contracting functions, compliance, finance and administration, and (6) perform decommissioning and decontamination to support improved long term operational efficiencies, as set forth in the following sections:

(1) Safe Tank Waste Storage

(i) General Description

Contractor shall provide an adequate, comprehensive, and reliable safety basis for the management and storage of waste managed by Contractor under the scope of this contract. This will be accomplished by developing, operating to and maintaining an integrated Authorization Basis (AB), and by resolving outstanding safety issues and unreviewed safety questions to ensure safe storage and retrieval of waste. Proposals to modify the AB shall be made as appropriate to provide a cost effective AB for safe and reliable waste retrieval, feed delivery, and immobilized product storage. Waste sampling and characterization will be performed as required to assure safe storage conditions. Waste monitoring, characterization, treatment, disposal and reporting will be

performed as required to meet regulatory requirements. HLW within the waste acceptance criteria will be received into the double-shell tank (DST) system from Hanford Site facilities as required to support the Hanford Site cleanup mission.

The Contractor will also adequately perform operations and maintenance; effectively manage, plan, and utilize resources; and implement an approved life-cycle asset management system.

(ii) Tank Farm Upgrades

Contractor shall upgrade tank farms to support safe and reliable operation and tank waste retrieval, staging and delivery efforts. This includes performing waste transfer system upgrades necessary to provide a compliant system to support waste feed delivery to the WTP and will include completion of additional waste system upgrades contained in the Baseline. The Contractor will comply with all regulations; and improve infrastructure reliability, operability and maintainability (including upgrades to transfer systems, instrumentation and control systems, electrical distribution and ventilation systems).

(iii) Interim Stabilization

The Contractor shall remove pumpable liquids from the single-shell tanks (SSTs) and transfer to DSTs to reduce environmental risk. The criteria and milestones in the Interim Stabilization Consent Decree shall be met. Entry points into stabilized SSTs shall be capped or plugged as required such that waste and water will not re-enter the tank.

(iv) 242-A Evaporator

Contractor shall transition from Fluor Hanford and operate and maintain the 242-A Evaporator structures, operating systems and equipment, and monitoring systems in accordance with the 242-A current Authorization Basis and applicable regulatory requirements. Contractor shall maintain security, radiological control, and access control to ensure personnel safety.

(2) Waste Retrieval

(i) General Description

Contractor shall in an environmentally sound, safe, secure, and cost-effective manner:

- Retrieve wastes from SSTs, DSTs, and designated miscellaneous underground storage tanks (MUSTs); and
- Provide waste to the WTP contractor for processing.

The waste retrieval and feed delivery workscope will be projectized to assure required deliverables are met. Contractor shall establish the functions and requirements and install the equipment needed to reliably deliver the proper waste feed on schedule to the WTP contractor for Phase I waste treatment as defined in the WTP Contract.

The *Tank Waste Remediation System (TWRS) Environmental Impact Statement Record of Decision* calls for retrieval of wastes from all 149 SSTs, 28 DSTs, and MUSTs. Until all waste is retrieved, the DSTs must function to store and prepare waste retrieved from SSTs and MUSTs for waste treatment facilities while optimizing utilization of DST space.

(ii) Single Shell Tank Retrieval

Contractor shall develop methods, systems and requirements for retrieving wastes from the Single Shell Tanks to the extent needed to close them in accordance with RCRA and the *Atomic Energy Act of 1954* (AEA). SST retrieval methods and requirements shall support SST retrieval demonstrations.

Single shell tank retrieval demonstration objectives include developing technologies to retrieve salt cake, hard heel, and other wastes from SSTs; determining technology limitations, retrieval efficiencies, safety and environmental concerns, and cost impacts for SST retrieval systems; evaluating alternative retrieval technologies for SSTs that have leaked or may leak; and supporting the transition and closure of SSTs and tank farms.

(iii) Double Shell Tank Retrieval and Waste Feed Delivery

Contractor shall design, construct, install and test systems for retrieving wastes from the DSTs to meet the waste feed requirements of the WTP. The Contractor will also maintain these systems to be operational when required to deliver waste. This will require providing DST waste retrieval systems that can supply waste feed in composition sufficient to meet waste feed delivery in quantities and rates sufficient to support the WTP processing capacities. This shall also include providing tank characterization and waste samples to support WTP planning and testing requirements, as identified in the Baseline. Also included is support for the development of the RPP flowsheet and planning inclusive of all major process steps and/or systems including but not limited to: SSTs, DSTs, pre-treatment, immobilization, immobilized product storage and disposal, as identified in the Baseline. Development of the RPP flowsheet includes improving the quality of input data, developing flowsheet assumptions, identifying inputs and outputs at each step, and developing constraints/requirements at each step.

(3) Treat Waste - Support

(i) General Description

Contractor shall design, procure, construct and operate infrastructure sufficient to enable the WTP facilities to be constructed and operated in accordance with the WTP contract, and consistent with the Interface Control Documents for infrastructure activities. Infrastructure shall be designed and constructed to support the addition of infrastructure needed to increase the WTP operations capacities consistent with the expandability requirements of the Contract.

(4) Storage/Disposal

(i) General Description

The Contractor shall provide safe storage and final near-surface disposal on the Hanford Site for ILAW and failed or decommissioned melters from the WTP. Safe interim storage for IHLW shall also be provided.

The ILAW Disposal Project shall be complete when all the ILAW is disposed, long-term surveillance and monitoring of the ILAW disposal site is ongoing, and interim storage facilities have been decontaminated and decommissioned. The ILAW Storage and Disposal facilities will receive accepted immobilized low activity tank waste from WTP contractor. The ILAW waste packages will be placed in near surface storage and disposal facilities. The near surface disposal systems along with the waste packages shall meet regulatory requirements for transportation and near-surface disposal of low-level waste.

The IHLW Interim Storage Facility will receive accepted IHLW, and transport these products to a Canister Storage Building (CSB), where the product will be stored until shipped to a geologic repository. Storage of the Phase I product in the CSB will consolidate the high level waste in one area and provide a safe, environmentally sound storage of the IHLW product. HLW Interim Storage will provide additional storage capacity during Phase II treatment. In addition HLW Interim Storage will provide loadout capability for shipment of IHLW canisters to a geologic repository.

(5) Close Facilities

(i) General Description

Contractor shall undertake facilities stabilization preparatory for the transition of such facilities for deactivation and decommissioning. Contractor shall develop closure plans in conformance with NEPA analysis developed to support tank closure and applicable RCRA requirements. The plans shall provide closure definition, system design, authorization basis, work plans, approvals and other information necessary for closing the SSTs in accordance with the closure requirements of DOE M 435.1 and TPA Milestones.

(6) Manage Projects

(i) General Description

Contractor shall establish and maintain necessary systems and organizational components necessary to execute the technical work scope set forth in this section of the Contract. This includes but is not limited to organizational components responsible for strategic analysis and integration; business management; contracts; compliance; finance and administration, consistent with the WBS descriptions in the DOE Mission Analysis Report.

(7) Analytical Laboratory Services

(i) General Description

The contractor is responsible for the 222-S Laboratory Complex including operating and maintaining the 222-S Building and auxiliary buildings that support the chemistry mission and support functions. Contractor:

- Will provide maintenance, routine calibrations, repairs and engineering functions;
- Will evaluate, develop and maintain authorization basis documentation, environmental permitting and other compliance documentation and activities;
- Will develop integrated site-wide analysis plans, pricing approach, and will provide process and analytical technology support;
- Assist with data quality objectives;
- Will provide analytical instrumentation and support equipment which assures capacity, capability and reliability are available to support accelerated clean up schedules.

Analytical workload to be integrated includes waste characterization (tank cores and grabs), operations support (evaporator feed), caustic mitigation, analytical work for PCB studies, and process support activities, analysis for accelerated cleanup activities such as tank closure, waste processing and feed preparations as well as storage of over 4000 samples.

(b) Required Investment by DOE – (Government Furnished Services/Items)

DOE and the Contractor both recognize that the successful execution of the Scope of Work of this contract will require cooperative efforts by both parties to minimize non-value added transactions. Within this recognition there are certain commitments and actions required on the part of the Government to achieve the desired performance within the level funding assumptions underlying the Baseline. Description of the Government Furnished Services/Items is set forth in the PBIs included in Section J, Appendix D, *Performance Based Incentives*.

The DOE and Contractor recognize that achieving the work set forth in the PBIs is a cooperative undertaking that requires both parties to seek innovative approaches to achieve the end objective. Streamlining process and eliminating non-value-added requirements are critical to accomplishing the desired objectives of the PBIs. Both parties agree through the term of this contract to use their best efforts and to cooperate in seeking the reduction of non-value-added requirements and processes that impede progress.

The Statements of Commitment set forth in the PBIs identify the commitments or deliverables necessary to achieve the desired endpoint/outcome. The parties will work during the term of the contract to fulfill the objective and meet the commitment and deliverables identified therein. During the performance of the contract, the parties agree that efficiencies and performance improvements will be required to reduce the actual cost and/or improve the schedule for the work.

The Contractor and the Government will establish a Partnering Agreement which is intended to support the achievement of the accelerated mission set forth in the PBIs. The agreement will establish a common vision with supporting goals and missions. It will promote the principles of teamwork, mutual respect, openness, honesty, trust, professionalism and build a better understanding of one another's position. The agreement will also include joint commitments to:

- Maintain high safety performance
- Eliminate barriers to a faster, more cost effective program
- Create an organizational culture able to accommodate change
- Resolve conflicts through a coordinated work effort to avoid adversarial relations
- Reinforce the partnered relationship with honest feedback and continual improvement.

C.4 SUPPORT FOR WASTE TREATMENT PROJECT CONTRACTOR

The Contractor shall be responsible for providing support to the Hanford Waste Treatment Complex Project. Part of the RPP mission is to separate the Hanford Site tank waste into LAW and HLW fractions and to immobilize and dispose of them in an environmentally sound, safe, and cost-effective manner.

The Contractor shall be responsible for coordinating the WTP contractor's requirements for infrastructure, utility, and service support with the PHMC, who shall provide such support as specified in RPP Interface Control Documents. Required services include waste sampling and characterization.

C.5 CROSS-CUTTING SERVICES

The Contractor shall obtain samples from high-level waste tanks for WTP, and the PHMC and its subcontractors at the Hanford Site. The sampling techniques may include grab sampling for liquids, core sampling for liquids and solids, and vapor sampling. Contractor will also provide coordination of laboratory analysis and data interpretation.

The Contractor shall receive liquid radioactive wastes that meet Contractor tank waste acceptance criteria from other site-wide facilities for storage in the DST systems and eventual immobilization and disposal.

The Contractor shall provide support for groundwater/vadose zone integration activities consistent with DOE-ORP approved interface management agreements.

The Contractor shall provide sitewide ventilation and balance services.

The Contractor will operate and maintain the 222-S Complex.

The contractor will also initially perform the analytical services production scope of receiving samples, performing analyses on primarily highly radioactive and/or hazardous waste samples for the Hanford site, and providing data to customers as well as optimizing daily laboratory operations. This work scope is being considered for an award to a small business entity by the Office of River Protection tentatively second quarter of FY04.

C.6 INTERACTIONS WITH OTHER PRIME CONTRACTORS

The Contractor may, from time to time, provide services to and receive services from other Hanford Site DOE prime contractors by memoranda of agreement or other subcontract arrangements. The Contractor is encouraged to utilize the specified expertise of the PHMC, PNNL, the Site Occupational Medical Contract (SOMC), the Environmental Restoration Contractor (ERC), and the Energy Savings

Performance Contractor (ESPC) to accomplish the TFC mission. In the event the Contractor determines that services may be obtained from more cost effective sources of supply, Contractor shall notify DOE of its proposal to utilize other sources. The Contractors shall work with each other in identifying yearly requirements for services. DOE approval will be obtained prior to changing service providers.